

I have introduced a drawing of this inscription, as fig. 3 of Plate IX. as from the size and good preservation of the original sculpture it furnishes some well-formed specimens of the written character of the period. A moment's inspection of this inscription shewed me my favorite land-marks, the title of a great sovereign, *mahárája adhi rája srí*. Most of the letters forming this expression agreed closely with the Allahabad forms:—the *srí* only differed materially, and corresponded rather to the type found on several of our ancient Hindu coins, especially the remarkable descendant of the Indo-Scythic series discovered in the cylinder at Manikyála (Plate XXI. fig. 9, of Vol. III. Journ. As. Soc.)

The restoration of the whole sentence, as far as I have been able to convert it into Devanágari with the assistance of GOVINDA RA'MA, is as follows :

१ परम भट्टारक महाराजाधिराज श्री कुल्य भरन देव दया चय

“The mighty and venerable, the great king of kings, SRÍ KULYA-BHARANA DEVA, the mountain of mercy.”

The letters of the name, however, are very doubtful:—the first seems more like an ऊ; the dental न न cannot follow the lingual र र, and the letters read as *deva* are uncertain. Neither is such a name known among the sovereigns of Magadha or Mithila. I only introduce the inscription into my plate to invite attention to it, as every authentic name of Hindu sovereigns is of importance to history.

VI.—*Extracts from a Journal kept during a Voyage from England to Calcutta, in 1831. By Lieut. T. HUTTON, 37th N. I.*

On the 19th August in latitude 11°54' north, longitude 25°24' west. Thermometer at noon 88°; with hot, calm weather, the first albatross was seen. Flying-fish, albicores, porpoises, bonitos, whales and medusæ were seen in abundance daily.

On the 14th September, in latitude 25°5' south, longitude 30°38' west. Therm. 70½°; wind variable, we saw the first Cape pigeon.

This bird, called also the pintado bird, is known to ornithologists as the Cape petrel, (*procellaria capensis*.) They are about the size of, or perhaps rather larger than a teal (*anas crecca*), and look very beautiful when sitting on the water; but their flight, although strong, is rather heavy and ungraceful. They are prettily spotted over with black and white, on the back, rump, and wings; head and neck black; under parts pure white, legs and feet black; beak shining black. Length 15½ inches, breadth with wings expanded 2-6 feet.

They are remarkably fat and plump, thickly clothed with feathers, under which is a close beautifully soft down of a dark greyish-brown colour.

The Cape petrels appear to be stupid unwary birds, easily caught by throwing a line out astern, and allowing them to entangle their wings in crossing and recrossing the wake of the ship; or, perhaps this may be attributed less to stupidity than to their great greediness, making them more intent on securing any morsel thrown overboard, than on avoiding the snares which are laid for them.

They are also taken with small hooks, and even crooked pins, baited with a little piece of fat, which they greedily swallow, fighting and screaming over the savoury morsel, until a sudden jerk of the line, hooks some unfortunate gourmand, and proves even to the poor petrel the truth of the saying, "there is death in the pot!"

When brought on board they both bite and scratch very sharply, and often successfully defend themselves by squirting over the assailant an oily liquid of a deep orange colour, smelling so rank and offensive, as to render the clothes so bespattered scarcely bearable for many days afterwards, and it is indeed very difficult to get rid of it from the hands even after repeated ablutions. Along with this nauseous fluid, many of them restored the pieces of pork with which we had so treacherously supplied them.

The natural food of these birds consists most probably of molluscous animals and medusæ, particularly those which shine with a phosphoric light in the night time, and which light, *if* the petrels are nocturnal birds, as Professor RENNIE says they are*, may be the means of guiding them to their prey; I am, however, rather inclined to doubt their being nocturnal, for reasons which will presently appear.

In examining the substance disgorged by some of these birds, I found a number of the interior cartilaginous membranes of the "*vil-
lella scaphidia*," quantities of which had been seen a few days before, of a beautiful blue colour, floating on the surface of the glassy sea.

Their numbers varied considerably on different days, sometimes following us in large flocks, and coming close to the ship's stern, while at other times there were only two or three to be seen.

I was much astonished at the coolness with which they would sit on the swelling waves and even allow the spray to dash right over them without rising, and seemingly with perfect indifference, continuing their squabbles for the baited hook, and diving very prettily should the object sink before they could pick it up. They alight upon

* "*Architecture of Birds*," p. 30.

almost every thing that leaves the ship, and this generally attracts the attention of the albatrosses, which keep at a greater distance.

I am much puzzled to account for the total disappearance of these birds during the night, and not only of these, but the albatrosses, stormy petrels and blue petrels also, for although they had continued about us in numbers all day, yet no sooner did the sun touch the horizon, than all disappeared as if by magic.

The question is, where do they go ?

Petrels are said to be *nocturnal* ; but such cannot be the case with the Cape petrel, stormy petrel, or blue petrel, for we had them sporting in our wake the whole day, and at night they disappeared, to rest I should suppose.

But *where* do they rest ?

If on the waves, is it not strange that we never found them sleeping in the calm, clear moonlight nights, as we held steadily on our course ? Yet never did we see one after sunset.

To suppose that they could wing their way to some of the rocky islands scattered through those southern latitudes would be absurd, for often we had flocks of these birds around us, when the nearest land must have been from 15 to 20 degrees distant, and although their powers of flight must be great indeed to enable them to keep on the wing with little intermission during the whole day, even when "blowing great guns," yet, as they did not leave us until sunset, with what fearful rapidity they would require to fly, when 10 or 1200 miles at sea, in order to reach their resting-places before the shades of night should overtake them !

Pigeons have been proved to fly at the rate of 60 miles an hour, but the petrels would require to perform a flight of 3 or 400 miles in the same time !!

That they are *not nocturnal* is clearly proved by their continuing with the vessel *all day*, and as it is evident they cannot exist without repose, we may fairly conclude that they *rest at night*, and again this rest must be taken on *land or water*.

That they cannot rest on land, is plain, from what I have already stated. There remains then nothing but the water for them, and we may conclude I think with safety that the reason of our not seeing them at night, is because they are able to descry the tall white-robed masts of the vessel at a sufficient distance to enable them to make a clean retreat before we came upon the spot which they had occupied, and this is the more probable, as they would, like other water-fowl when sleeping in any number, have a watchful sentinel to warn them of the approach of dangers to which they must be constantly ex-

posed from the monsters of the deep. I have repeatedly inquired of seafaring men, whether they had seen these birds at night, but none could recollect a single instance. One person mentioned having caught a stormy petrel on a small hook, which had been towing astern all night, and therefore he concluded that the bird was nocturnal. But this is no proof at all, since he did not know the hour when the bait was taken, and it is therefore more than probable that it occurred at early dawn, when these little skimmers of the sea were as usual on the wing in their restless search for food.

Quere—As the albatrosses and petrels must be many days at sea, without being near land, whence do they find water to drink, unless it be that of the briny ocean? or, will their food, supposing it to consist of mollusca and medusæ, supply them with sufficient moisture?

On the 28th October, these birds deserted us, and we saw them no more during the voyage, having followed us from the 14th September in latitude south $25^{\circ}5'$ and longitude west $30^{\circ}38'$ down to latitude south $41^{\circ}38'$, and longitude east $33^{\circ}8'$, and up again to latitude south $31^{\circ}54'$ and longitude east $80^{\circ}8'$. A period of one month and 14 days.

Although we saw the albatross on the 19th August, we were not fortunate enough to procure one until the 26th September, in latitude $33^{\circ}38'$ south, longitude $3^{\circ}5'$ west; thermometer 54° , weather cold.

This bird was shot by a passenger, and although in all respects agreeing with the generic description, and a true albatross, was by the officers of the ship termed a "mollimawk."

The plumage beneath is pure white, as also the rump, head and nape; through the eye is a dark bluish-black stripe; back and sides of the neck, as also the back and tail feathers, slaty-brown; wings the same but darker. Beak dark cinereous or greyish-black, and the legs and feet yellowish flesh-colour. Length 3 feet, breadth 7 feet. Irides yellow.

On the 21st October, in latitude $37^{\circ}14'$ south, longitude $69^{\circ}8'$ east, thermometer 63° , with a dead calm, we saw several albatrosses apparently of different species.

One of these birds came following up the wake of the ship, so closely and with his eyes so intent on the water, that at first I thought he was coming on board, but when he saw me standing on the poop, he turned suddenly across the wake; at the same time I jerked up the line with which I was fishing for them, and luckily struck him on the wing, which throwing him off his balance, obliged him to settle on the water from whence he might have made his escape with ease, had he not in a fit of rage, and spite at being struck with the line,

turned round to bite the innocent means of his discomfiture ; by so doing, however, he contrived to entangle his wing, and to my great joy I succeeded in hauling him on deck, unspotted and unharmed in plumage.

He belongs also to the genus *diomedea*, or albatross, but whether a young bird, or a distinct species from the large white-bodied bird usually known to sailors by that name, I cannot positively determine, as I have never had an opportunity of comparing them ; but from the description of both, I am inclined to think them distinct.

The breadth from tip to tip of the expanded wings is six feet ; and its length from tip of beak to end of tail 2 ft. 5½ in.

The whole of the under parts are pure white, as are the rump and upper tail coverts ; the wings and back and tail feathers are of a very dark chesnut-brown ; the head and back part of the neck are white, faintly clouded with a tinge of bluish ash, which gradually grows darker as it joins and blends with the dark colour on the back.

The legs are of a very pale bluish-white. The beak is very beautifully marked on the ridge of the upper mandible with a line of clear bright yellow, which is well set off by the rest of the beak being of a jet black, except the hook, which is rosy flesh-coloured, and is a continuation of the yellow line.

At the base of the lower mandible is a small caruncle, stretching on each side from the edge to the bottom of the bill in a narrow line of deep orange-yellow. The eye has a narrow stripe of bluish-black running through it, and blending with the plumage on the back of the head and neck. Irides hazle.

On examining the gizzard of this bird, we found the eyes of a fish, which, to judge from their size, must have been from a pound and a half to two pounds in weight.

Both of these specimens had a beautifully soft white down, very close, beneath their feathers.

Whenever the Cape pigeons alighted upon any thing, the albatross immediately perceived it, and sweeping over the waters with outstretched wing, threw himself into the midst of them with a hoarse croaking scream, and obliged them to abandon the prey to him.

On first alighting on the water the albatross holds his wings half-folded high over his back, and if he finds any thing to devour, slowly folds them in on his sides ; but if he is disappointed in obtaining prey, he throws forward his head and neck, and once more expanding his long wings, runs with three or four splashing steps on the wave, and then rising gradually into the air, skims along with incredible strength and rapidity.

Nothing can be more majestic than the long, sweeping flight of this bird, as he skims closely over the face of the deep, almost without moving his wings, which are kept at full stretch, until he suddenly throws himself far above the waves, and then with a long sweep dashes down again, and skims away as before for many yards without any apparent motion of the wing, save now and then a slight bending near the tip as he avoids the foaming crest of a wave. They always alight on the water before taking their prey, holding the head and neck very erect when swimming, and looking both bold and graceful.

The sooty albatross (*Diomedea fuliginosa*), called by the officers of the ship, a "*Peeroo*," is both more numerous and more familiar than the other kinds, and flies rather differently, not sweeping so long and steadily over the surface of the deep as the larger albatrosses, and rising far above the yards, impudently skirting the sides of the ship, and looking down upon the decks*; they flap their wings frequently in flying, which the larger birds do not. If the weather is calm, however, and the wind very light, they all flap their wings oftener, so that the above description is more applicable to windy weather.

The sooty albatross or Quaker bird, was first seen on the 26th September, latitude 33°30' south, longitude 3°5' west, thermometer 54, weather cold wind variable; and left us on the 26th October in latitude 33°34' S. longitude 77°16' E. thermometer 59½°. Thick hazy weather; wind S. S. E.

The other albatrosses continued to be seen until the 29th October, in latitude 29°37' S. longitude 82°28' E. thermometer 69°. Fine weather; wind easterly.

IN GRIFFITH'S translation of CUVIER, the petrels are stated to "drop upon their prey with extreme promptitude, and carry it off with their bill, as with a harpoon: but they have not the habit of diving to attain it. They are in fact never seen to submerge, and when the animal they are watching is somewhat below the surface, they sink a portion of their body in the water to seize it."

This is not correct, as the petrels, or at least the Cape petrel, as I have already stated, can dive very prettily, and I frequently saw them do so, after the pieces of pork which we threw overboard to them. They certainly alight very quickly upon their prey, but not with the sudden and headlong rush of the rapacious tribes, as the word "*drop*" would lead one to expect. It must however be remembered that I speak only of the Cape petrels, which also devoured their prey before rising from the water: other species may perhaps act differently.

* Perhaps COLERIDGE may have alluded to this bird, in his "*Antient Mariner*."

I am happy to find that my description of the manners and flight of the albatross agrees so nearly with that of the author just mentioned. He says, however, that this bird constantly dips its head below the surface of the water, during its flight, in search of food.

This I never saw, although I have sometimes watched them for the greater part of the day. Like the Cape petrel they always settled before they seized their prey, and never rose until they had devoured it.

As truth is the grand desideratum in all scientific researches, I do not think it necessary to offer any apology for having set forth my remarks in opposition to those of more experienced men, because I have stated no more than what actually passed under my own observation: whereas the authors above mentioned have written in a great measure from hearsay, and consequently may have been obliged to take on credit a great deal of unauthenticated matter.

[We regret that we cannot find room for Lieut. HUTTON's daily Journal, kept during his voyage to India. We presume however that the principal facts in natural history observed by him have been alluded to above.—ED.]

VII.—*Account of Oxygyrus; a new Genus of Pelagian Shells allied to the Genus Atlanta of LESUEUR, with a Note on some other Pelagian Shells lately taken on board the Ship Malcolm. By W. H. BENSON, Esq. Bengal Civil Service.*

The following characters of a new Pelagian shell, taken on the surface of the Southern Atlantic and Indian Oceans, may prove interesting to naturalists, inasmuch as hitherto only one genus of the family, viz. *Atlanta*, has been discovered; and of the remaining family of the order, a single genus, bearing a shell, is known, that of *Carinaria*, of which scarce and beautiful groupe we took, in the Indian Ocean, two new species, which I hope shortly to describe and illustrate. The shell of the genus *Atlanta* was first made known by LAMANON, in a paper sent to France during the progress of LA PEYROUSE's voyage. Overlooking the absence of septa, he called it "Corne d'Ammon vivante." The only specimens he met with were dead, and were taken from the stomachs of Bonetas, which he supposed to have brought them up from great depths, little dreaming that hundreds of living specimens were nightly within his reach on the surface of the Ocean. Lately the genus has been re-discovered by the American French naturalists, the animal has been referred to its proper place in the system, and a scientific name has been conferred upon it by M. LESUEUR. I now come to my description of the allied genus, which